UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8, MONTANA OFFICE
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HELENA, MONTANA 59626

Ref: 8MO

June 20, 2007

Mr. Jose Castro, District Ranger
Bozeman Ranger District
Gallatin National Forest
3710 Fallon Street, Suite C
Bozeman, Montana 59718

Re: CEQ # 20070184; EPA Comments on North Bridgers Allotment Management Plan Update DEIS

Dear Mr. Castro:

The Environmental Protection Agency (EPA) Region VIII Montana Office has reviewed the Draft Environmental Impact Statement (DEIS) for the North Bridgers Allotment Management Plan Update in accordance with EPA responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA), and Section 309 of the Clean Air Act. Section 309 of the Clean Air Act directs EPA to review and comment in writing on the environmental impacts of any major Federal agency action. EPA's comments include a rating of both the environmental impact of the proposed action and the adequacy of the NEPA document.

The EPA is pleased that the Bozeman Ranger District on the Gallatin National Forest is proposing to improve grazing practices on Federal grazing allotments in the North Bridger Mountains to address grazing effects on stream form and function and riparian health as well as noxious weeds. Grazing practices can adversely impact streams and riparian areas by changing, reducing, or eliminating riparian vegetation leading to stream channel widening and aggradation or lowering of the water table, destabilized stream banks, loss of aquatic habitat, and adverse effects on fisheries and water quality. We support improvements in grazing management by using practices such as reducing the intensity (number of animals) and duration of livestock grazing; establishing standards for bank trampling, forage utilization, stubble height, & woody browse use; enhancing fencing and herding; using livestock exclosures; off-stream watering; and other range improvements or practices; and a monitoring and adaptive management approach.

We support the proposal to update Allotment Management Plans (AMPs) for the North Bridger Mountains grazing area, and consider such efforts to be consistent with the Forest Service's responsibility for assuring that activities on National Forest land are consistent with the Clean Water Act goal to restore and maintain the chemical, physical and biological integrity of the Nation's waters.

We also concur with the summary conclusion in the DEIS that Alternative 2 (continuing with current grazing practices) is only marginally consistent with State and Federal water quality laws and policies and the Forest Plan, since some streams in the area are not in properly functioning condition or have degraded stream channel and/or riparian conditions as a result of current grazing practices. Improvements in grazing management are clearly needed to restore properly functioning stream and riparian conditions.

The DEIS indicates that there are 23 sites (or stream segments) that have degraded conditions (i.e., functioning-at-risk, non-functioning, or with significant departures in stream stability ratings), with 8 of the 23 sites degraded entirely due to grazing practices, and 11 sites degraded only partially due to grazing. The DEIS, however, does not clearly identify these 8 and 11 degraded sites and the specific management activities that would be implemented in each allotment to restore the degraded sites. Such information appears to only be partially presented and/or presented in a confusing manner scattered throughout the DEIS. The connection between the proposed management actions presented in Table 2.4 and Appendix 2 to the specific 19 degraded sites are not clear. It would be of interest to list each of these 19 degraded sites, identifying the cause of the degradation at each site along with the management actions that are expected to be implemented in each allotment address the degradation at each site. This would more clearly disclose this important information in the EIS.

It also appears to us that that there may be discrepancies between some statements in the narrative of the DEIS regarding future management on allotments and the implementation of management actions for allotments shown in the summary Table 2.4. Any inconsistencies between the narrative and Table 2.4 should be corrected.

For the most part we think the proposed monitoring and adaptive management program is good, although we have concerns that adequate resources may not be available to carry out all the necessary monitoring and range improvements. Is it expected that there will be adequate budgets and resources to implement the monitoring and range improvements and adaptive management program? It is also not clear to us how the 13 selected monitoring reaches will allow monitoring of all 19 stream segments that are stated to be degraded by grazing practices. The ability of 13 proposed monitoring sites to evaluate recovery of the 19 sites degraded due to grazing should be discussed further in the FEIS. If any sites degraded by grazing will not be monitored, an explanation of how their recovery will be evaluated should be provided.

Also, the proposed updated upland grazing utilization guidelines and updated riparian grazing guidelines to be used on the North Bridgers AMPs are not entirely clear. It would be of interest to know if the updated Gallatin Forest riparian grazing guidelines are similar to those used on the Beaverhead Forest that evaluate: 1) forage utilization; 2) stubble height; 3) streambank alteration; and 4) woody browse use; with trigger values for these indicators to determine when livestock should be moved. The monitoring parameters and trigger values for the updated Gallatin Forest upland and riparian grazing guidelines should be more clearly presented.

The EPA's further discussion and more detailed questions, comments, and concerns regarding the analysis, documentation, or potential environmental impacts of the North Bridger Allotment Management Plan Update DEIS are included in the enclosure with this letter. Based on the procedures EPA uses to evaluate the adequacy of the information and the potential environmental impacts of the proposed action and alternatives in an EIS, the DEIS has been rated as Category EC-2 (Environmental Concerns-Insufficient Information).

As can be seen from the enclosed comments, the EPA is supportive of the proposed grazing improvements and the preferred alternative, but believes additional information should be provided regarding sites degraded by grazing and the management actions that would be taken to address the degradation in each allotment, and the updated upland and riparian grazing guidelines, and recommends that inconsistencies in information disclosure be corrected. The EPA also has concerns regarding the availability of adequate funds and resources to implement proposed range improvements and the proposed monitoring program. The EPA believes additional information is needed to fully assess and mitigate all potential impacts of the management actions.

The EPA appreciates the opportunity to review and comment on the DEIS, and the opportunity to review the proposed project in the field. If we may provide further explanation of our comments please contact Mr. Steve Potts of my staff in Helena at 406-457-5022 or in Missoula at 406-329-3313 or via e-mail at potts.stephen@epa.gov . Thank you for your consideration.

Sincerely,

/s/ John F. Wardell
Director
Montana Office

Enclosures

cc: Larry Svoboda/Julia Johnson, EPA 8EPR-N, Denver
Mark Kelley/Robert Ray, MDEQ, Helena

EPA COMMENTS ON NORTH BRIDGERS ALLOTMENT MANAGEMENT PLAN UPDATE DRAFT EIS

Brief Project Overview:

The Bozeman Ranger District of the Gallatin National Forest is proposing to update allotment management plans on 11 livestock grazing allotments in the Northern Bridger Mountains in Gallatin County, Montana. The area includes 57,000 acres of National Forest lands and private lands managed as part of the grazing permits. The purpose and need is improve resource and environmental conditions on the allotments, particularly to address threats from invasive plants, grazing effects on stream channel form and function and riparian health, and to move the areas toward the Forest Plan desired conditions and comply with direction, polices and laws. The 11 allotments included in the analysis are the Alexander, Battle Ridge, Blacktail, Brackett Creek, Elk Horn, Elk Ridge, Flathead, Mill Creek, Middle Fork, North Cottonwood, and Troy Creek grazing allotments. Three alternatives were evaluated.

Alternative 1 is the no grazing alternative that involves removing livestock from allotments, with no grazing on any of the allotments. Alternative 1would include removal of fences, water developments, corrals and other structural improvements related to livestock grazing.

Alternative 2 is the no action alternative that would maintain current grazing strategies, and include continuing maintenance and construction of fences, water developments, cattle guards, permit administration, monitoring of utilization in riparian and upland areas, meetings with permittees, seasonal trailing of livestock into and out of grazing area, and weed treatments as resources allow.

Alternative 3, which is the lead agency's preferred alternative, involves implementing an adaptive management program on the 11 allotments with formation of an interdisciplinary team called the Adaptive Management Implementation Team that would oversee the program, including providing management guidance and reviewing monitoring data. Items to be monitored would include:

- Upland livestock distribution
- Compliance with annual operating plan
- Number of functioning range improvements
- Stream Channel form and function
- Streambank disturbance
- Riparian vegetation health
- Economic Impacts on the permittee

Comments:

1. The EPA is pleased that the Bozeman Ranger District of the Gallatin National Forest is proposing to improve grazing practices on Federal grazing allotments in the Northern Bridger Mountains to address grazing effects on stream form, function and riparian health and threats from invasive plants. Grazing practices can adversely impact streams and riparian areas by changing, reducing, or eliminating riparian vegetation leading to stream channel widening and aggradation or lowering of the water table, destabilized stream banks, loss of aquatic habitat, and adverse effects on fisheries and water quality (sediment, nutrients, fecal coliform, temperature effects, etc.).

   The development of updated Allotment Management Plans (AMPs) for the North Bridger Mountains grazing area should improve water quality and riparian and hydrologic condition and fisheries. We support the proposal to update AMPs, and consider such efforts to be consistent with the Forest Service's responsibility for assuring that activities on National Forest land are consistent with the Clean Water Act goal to restore and maintain the chemical, physical and biological integrity of the Nation's waters.

   We support improving grazing management by using practices such as bank trampling standards, forage utilization standards, stubble height, woody browse use, reducing the intensity (number of animals/AUM) and duration of livestock grazing, enhancing fencing, riding/herding, livestock exclosures, off-stream watering, and other range improvements or practices, and a monitoring and adaptive management approach.

2. We appreciate the inclusion of many informative maps in Appendix 1, and Tables 2.3 and 2.4 identifying factors that contribute to degraded riparian and stream conditions and the management actions to be implemented in each grazing allotment to address the degradation, as well as and the more detailed descriptions of management actions in Appendix 2. This information improves project understanding and assists in evaluation of the proposal.

3. We support the project objectives to be used to evaluate progress toward meeting the target conditions: 1) attain annual operating plan compliance from permittees by 2009; 2) maintain riparian systems in proper functioning condition (PFC); 3) establish a positive trend for functioning-at-risk or non-functioning riparian systems by 2015 and bring all streams into fully functioning condition by 2025; and 4) reduce weed populations by 50 percent and eliminate new weed infestations and maintain weed free areas by 2015 (pages 2-18 to 2-21). We note that an additional objective is identified in the DEIS Summary on page 10 that says allotments would be brought into compliance with Montana grazing BMPs by 2019. Is there any particular reason this objective was not included in the set of objectives in Chapter 2?

4. The updated upland grazing utilization guidelines and updated riparian grazing guidelines to be used on the North Bridgers AMPs (as noted in Table 2.4) are not entirely clear to us.

We note that the Beaverhead National Forest uses Riparian Guidelines that seem to be successful in promoting recovery of stream channels and riparian vegetation in the presence of grazing. The Beaverhead Riparian guidelines rely upon permittee monitoring of: 1) forage utilization; 2) stubble height; 3) streambank alteration; and 4) woody browse use; and using trigger values for these indicators to determine when it is necessary to move livestock. It would be of interest to know if the updated Gallatin Forest upland and riparian grazing guidelines are similar to those in use on the Beaverhead Forest (i.e., What are the monitoring parameters and trigger values for the updated upland and riparian grazing guidelines?).

5. Thank you for providing the discussion of monitoring on pages 2-21 and 2-22, and the Monitoring Plan in Appendix 3. The EPA believes that monitoring is a necessary and crucial element in identifying and understanding the consequences of one's actions, and should be an integral part of any management decision.

   We generally consider there to be three purposes for monitoring of range management: 1) determining annual management actions to be taken, such as movement of animals within or between pastures; 2) determining the overall trend of the range, water, and related conditions over time; and 3) validating predictions made during the analysis process and documenting improvements. Identification of benchmark conditions to be monitored over the long-term to determine relative progress toward a desired condition, and when conditions or triggers are reached that might lead to a change in grazing management are particularly important.

   We appreciate the informative disclosures about monitoring in Appendix 3 including items to be monitored; sample methods; frequency, duration and timing of monitoring; who is responsible for monitoring; and how the data would be analyzed and interpreted. While we believe that the proposed monitoring program is good, we are concerned whether adequate budgets and funding will be available to implement this monitoring program. Will the necessary funding and resources be available to implement this monitoring program as well as proposed range improvements?

   We also draw your attention to the documents, *"Monitoring Protocols To Evaluate Water Quality Effects of Grazing Management On Western Rangeland Streams,"*; *"Monitoring for Success: Ranch Planning, Upland Monitoring, Stream Channel and Riparian Area Monitoring"*; and two brochures, *"Riparian Grazing Successes on Montana Ranches", and "Managing Change: Livestock Grazing On Western Riparian Areas."* These references may be helpful in refining the monitoring program and in obtaining additional cooperation and understanding from grazing permittees in carrying out grazing management and monitoring activities. Contact the Montana DEQ if you need to obtain copies of these documents (contact Andrew Jakes, Nonpoint Source Information & Education Coordinator at MDEQ at 444-7425).

6. It is stated (page 2-27) that Forest Service crews would monitor spawning distribution and timing along National Forest portions of SF Flathead Creek, Fairy Creek, and Cache Creek. It is disclosed in Chapter 3 that there are good fish populations in many other streams in the project area (e.g., Quaw Creek, SF Sixteen Mile Creek, Troy Creek, Brackett Creek and its forks, pages 3-11 to 3-25). Why are SF Flathead Creek, Fairy Creek, and Cache Creek the only streams identified for monitoring of spawning distribution and timing? Can monitoring of spawning success be carried out in additional streams with fisheries?

7. Wetlands are discussed at the bottom of page 3-2, where it is stated that while there are limited areas of wetlands in the North Bridger Allotments, there are wetlands along perennial stream channels as well as springs, wet meadows and forested wet areas. EPA considers the protection, improvement, and restoration of wetlands to be a high priority. Wetlands increase landscape and species diversity, and are critical to the protection of designated water uses. Wetlands have experienced severe cumulative losses nationally. Potential impacts on wetlands include: water quality, habitat for aquatic and terrestrial life, flood storage, ground water recharge and discharge, sources of primary production, and recreation and aesthetics. Executive Order 11990 requires that all Federal Agencies protect wetlands. In addition national wetlands policy has established an interim goal of **No Overall Net Loss of the Nation's remaining wetlands**, and a long-term goal of increasing quantity and quality of the Nation's wetlands resource base. Wetland impacts should be avoided, and then minimized, to the maximum extent practicable, and then unavoidable impacts should be compensated for through wetland restoration, creation, or enhancement.

   Riparian habitats, similar to wetlands, are also important ecological areas. Riparian areas support many species of western wildlife, and increasing landscape and species diversity. EPA also considers the protection, improvement, and restoration of riparian areas to be a high priority.

   We fully support development and implementation of updated grazing AMPs that adequately protect and/or restore wetland and riparian habitats including: the physical integrity of aquatic ecosystems; naturally functioning riparian vegetation communities; source habitats for riparian- or wetland-dependent species, and water quality and hydrologic processes. We are pleased that improvements would be made to redistribute livestock use out of riparian areas and livestock may be removed early from riparian areas, and that management actions proposed under Alternative 3 and the oversight of the Adaptive Management Implementation Team (AMIT) would provide better opportunities to than Alternative 2 to begin recovery of degraded riparian areas (page 4-49).

   Is it believed that the updated riparian grazing guidelines, management practices, and BMPs under AMIT oversight will adequately protect the wetlands found along perennial stream channels as well as springs, wet meadows and forested wet areas in the project area in addition to the riparian areas?

8. We appreciate Forest Service's efforts to monitor and evaluate proper functioning condition (PFC) and stream channel stability during the 2004, 2005 and 2006 field seasons, and to display monitoring results in Tables 3.5 and 3.6 (pages 3-6 to 3-9). We note that several lines in Table 3.5 summarizing Stream Characteristics in the area are darkened in our copies of the DEIS and are virtually illegible. This should be corrected in the FEIS so that the reader can review all the information in Table 3.5. We also note that the narrative near the bottom of page 3-4 indicates that the results of the 74 field site visits are displayed in Table 3.7, when it appears that the results are actually displayed in Table 3.5 rather than Table 3.7.

9. Field monitoring appears to show that 19 of 61 sites evaluated for PFC were determined to be functioning-at-risk (FAR), while 2 sites were non-functioning (NF), and 2 sites monitored for stream stability had at least a 20 point departure in the Pfankuch stream stability rating (page 3-8). Overall, therefore, 23 sites (or stream segments) appeared to evidence some degree of degradation of stream condition. Table 3.6 shows that grazing practices were either responsible or partially responsible for degradation of 19 of these 23 sites, with 8 of the 23 sites degraded entirely due to grazing practices, and 11 sites degraded only partially due to grazing. It would be of interest to list or otherwise more clearly identify the individual 8 and 11degraded streams (i.e., or stream segments) and the grazing allotments where grazing was considered to be responsible or partially responsible for the degradation of stream condition. Such information appears to only be partially presented and/or presented in a confusing manner scattered throughout the DEIS. The connection between the proposed management actions presented in Table 2.4/Appendix 2 to the specific 19 degraded sites are not clear.

   Also, the discussion on pages 4-5 and 4-6 appears to indicate that implementation of the agency's preferred alternative (Alternative 3) for the Alexander, Battle Ridge, Brackett Creek, Elk Horn, Flathead (north), and Troy Creek grazing allotments would lead to recovery or improvement in the conditions of 16 FAR and NF sites; and improvements on the Blacktail, Elk Ridge, Flathead (south), Mill Creek, and Middle Fork grazing allotments would lead to lead to recovery of the other three sites degraded by grazing. It would be of interest to list each of the 19 degraded sites, identifying the cause of the degradation at each site along with the management actions that are expected to be implemented in each allotment that would address the degradation. This would more clearly disclose this important information in the EIS.

10. Clear identification of the specific streams degraded due to grazing is particularly of interest to allow comparison of the 19 degraded stream segments with the eleven selected stream channel monitoring reaches installed in 2005 on nine of the eleven allotments (which are shown in Table 3.7, page 3-9), and the two additional monitoring sites established in 2007 to monitor recovery in one additional FAR site and one NF site (page 4-3).

It is not clear to us how the 13 selected monitoring reaches will allow monitoring of all 19 sites degraded by grazing practices. The ability of proposed 13 monitoring sites to evaluate recovery of the 19 sites degraded due to grazing should be discussed further in the FEIS. If any sites degraded by grazing will not be monitored, an explanation of how their recovery will be evaluated should be provided.

11. It is stated that the North Cottonwood Allotment would be closed in Alternative 3 on page 4-5. Closing this allotment to grazing, however, is not identified as a management action in Table 2.4 (page 2-26). In fact the only management action in the North Cottonwood Allotment according to Table 2.4 would be to treat noxious weeds. Further, it is stated that the Elk Ridge, Middle Fork, Blacktail, Mill Creek, and Flathead Creek (south) allotments would be grazed similarly to the way they are grazed today with several minor changes (page 4-12), yet the Table 2.4 management actions seem to indicate more significant grazing changes in these allotments (e.g., livestock numbers would be changed in the Mill Creek allotment, and pastures would be reconfigured and updated upland grazing utilization guidelines and updated riparian grazing guidelines updated would be used on the Middle Fork allotment, and grazing systems changed on the Flathead allotment).

    It appears, therefore, that there may be discrepancies between statements in the narrative of the DEIS regarding future management on allotments and the implementation of management actions for allotments shown in Table 2.4. Any inconsistencies between the narrative and Table 2.4 should be corrected.

12. Four additional allotments are noted on page 4-12 that would continue to be grazed in accordance with their AMPs (i.e., Weber, Pass Creek, West Bridger, and Canyon Creek allotments). These 4 allotments are not among the 11 allotments where AMPs are being updated with this project. Does this mean that there are no factors on these 4 allotments that contribute to degradation of stream form and function, riparian health or noxious weed invasion (e.g., improper livestock distribution, streambank trampling, streams not in PFC, etc.) as there are on the other 11 allotments being updated with this proposed project?

13. We concur with the summary conclusion in the DEIS that Alternative 2 (No Action) is only marginally consistent with State and Federal water quality laws and policies and the Forest Plan (page 4-11), since some streams are not in properly functioning condition or have degraded stream channel and/or riparian conditions due to grazing. Improvements in grazing management are clearly needed to restore properly functioning stream and riparian conditions.

    Thank you for providing discussion of noxious weeds and invasive plants present in the project area (pages 3-54 to 3-59) including discussion of mechanisms of weed establishment and dispersal. Noxious weeds are a great threat to biodiversity, and can out-compete native plants and produce a monoculture that has little or no plant species diversity or benefit to wildlife. We fully support efforts to control and reduce weed threats, although we encourage prioritization of management techniques that focus on non-

chemical weed control first, with reliance on chemicals being the last resort, since weed control chemicals can be toxic and have the potential to be transported to surface or ground water following application. Weed prevention is often the most cost-effective way to manage and control weeds by avoiding new infestations and spread of weeds, and thus, avoiding the need for many herbicide weed treatments (e.g., revegetation of disturbed areas, use of weed free seed, cleaning vehicles and equipment, and other practices that prevent infestation and spread of weeds). Early recognition and control of new infestations avoids wider future use of herbicides and other control methods. We also suggest that you consider the use of biological control if insects or other biocontrol methods are available for their control in areas that would be sensitive to herbicide use.

We are pleased that Alternative 3 would be more efficient at addressing the weed problem and provide more opportunities for effective weed suppression strategies in comparison to Alternatives 1 and 2 (page 4-58). We support attainment of the project objective to halt expansion of weeds, eliminate new infestations and maintain weed free areas by 2015.